BSc (Hons) Statistics

Mathematical Sciences / Faculty of Science and Engineering

Year 1 Modules

The preliminary year is designed to help you develop your English language skills so that you can make the most of your degree programme.

This special English language programme designed by the English for Academic Purposes experts at the University's Centre for English Language Education is carefully integrated with academic content modules so that you are prepared fully for years two to four of your degree programme.

Module Code	Module Title	Credits
CELEF008	Introduction to Academic Skills	10
CELEN086	Introduction to Algorithms	10
CELEF005	Foundation Algebra	20
CELEN056	Electricity and Magnetism	10
CELEN057	Foundation Mechanics	10
CELEF003	Foundation Calculus	20
CELEF006	English for Specific Academic Purposes: Science and Engineering	10
CELEN087	Introduction to Mathematical Software and Programming	15
CELEN058	Further Foundation Mechanics	15

Year 2 Modules

You will learn core mathematical topics such as sequences and series, calculus and matrices, probability and statistics, that are fundamental to your later mathematical studies. In addition, a variety of optional modules in physics, computer science, engineering, economics and management will be offered.

Compulsory Modules

Module Code	Module Title	Credits
MATH1032	Probability	10
MATH1027	Calculus	20
MATH1028	Analytical and Computational Foundations	20
MATH1029	Applied Mathematics	20
MATH1030	Linear Mathematics	20

MATH1033	Statistics	10

Optional Modules

Module Code	Module Title	Credits
BUSI1122	Introduction to Accounting	10
MATH1052	Foundations of Pure Mathematics	10
MMME1019	Thermodynamics & Fluid Mechanics 1	20
BUSI1113	Fundamentals of Financial & Management Accounting	20
BUSI1070	Business Finance	10
BUSI1073	The Digital Economy	10
MATH1053	Mathematical Structures	10

Year 3 Modules

This year of the course is undertaken at the University of Nottingham, UK. The mathematical tools you will need are developed for statistics to a more advanced level, enabling you to model problems from real-life applications. You will also receive a solid education in statistics, allowing you to use mathematical techniques and way of thinking to innovate.

Compulsory Modules

Module Code	Module Title	Credits
MATH2011	Statistical Models and Methods	20
MATH2010	Probability Models and Methods	20
MATH2019	Introduction to Scientific Computation	20

Optional Modules

Module Code	Module Title	Credits
MATH2009	Mathematical Analysis	10
MATH2005	Vector Calculus	10
MATH2012	Modelling with Differential Equations	20
MATH2013	Introduction to Mathematical Physics	20
MATH2008	Differential Equations and Fourier Analysis	10
MATH2007	Complex Functions	10

Year 4 Modules

This year of the course is undertaken at the University of Nottingham, UK. In this year, you will have the chance to study a range of advanced topics in statistics and its applications, as well as subjects from finance, economics and engineering.

Optional Modules

Module Code	Module Title	Credits
MATH3013	Statistical Inference	20
MATH3014	Stochastic Models	20
MATH3011	Coding and Cryptography	10
MATH3027	Optimization	20
MATH4067	Data Analysis and Modelling	20
MATH3015	Mathematical Finance	20
MATH3026	Time Series Analysis	20
MATH3029	Applied Statistical Modelling	20
MATH3030	Multivariate Analysis	20
MATH3036	Scientific Computation and Numerical Analysis	20